National Transportation Safety Board
Aviation Accident Final Report

Location:	Deadhorse, AK	**Accident Number:**	ANC14LA007
Date & Time:	11/22/2013, 1330 AST	**Registration:**	N575X
Aircraft:	BEECH 1900C	**Aircraft Damage:**	Substantial
Defining Event:	VFR encounter with IMC	**Injuries:**	3 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

Before departure of the short, nonscheduled charter flight, the weather at the destination airport was reported to be wind from the northeast at 27 mph, scattered clouds with blue skies above, and 1 1/2 statute miles (sm) visibility with blowing snow. According to the first officer, after departure, he contacted the destination airport and was advised that the visibility had deteriorated to 3/4 sm. The captain then informed the private weather observer that the flight would need at least 1 sm visibility to land. A few minutes later, the weather observer informed the captain that the visibility had improved to 1 sm. The captain stated that the approach was normal until he had a "sinking sensation" and realized that the airplane was too low. The airplane subsequently touched down short of the runway, and the main landing gear impacted the elevated edge of the runway surface, which resulted in the right main gear separating. The airplane then slid along the runway surface, which resulted in substantial damage to the fuselage and right elevator. The captain reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

The private weather observer on duty at the destination airport the day of accident reported that he notified the pilots via radio that he could occasionally see a cold storage camp located 1 1/4 miles away but that he did not have 1-mile visibility. He said that, the weather was "bad" and that, at times, he could not see the runway. He said that he instructed the pilots to use their own judgment. Based on reported weather observations, at the time of the accident, the visibility had deteriorated to 1/2 mile in heavy blowing snow. Therefore, it is likely that the flight crew lost sight of the runway during the visual approach, which resulted in the airplane touching down short of the runway.

According to the company's General Operations Manual (GOM), operational control was held by the flight coordinator for the accident flight, and the flight coordinator and pilot-in-command (PIC) were jointly responsible for preflight planning, flight delay, and release of the flight, which included the risk assessment process. The flight coordinator who had operational control of the flight and released it the day of the accident had not completed flight coordinator training, which was required per the company's Federal Aviation Administration (FAA)-approved operations training manual. She assigned the flight a risk level of 2 (on a scale of 1 to

4), which, according to company risk assessment and operational control procedures, required a discussion between the PIC and flight coordinator about the risks involved. However, the flight coordinator did not discuss with the flight crew the risks and weather conditions associated with the flight. At the time of the accident, no signoff was required for flight coordinators or pilots on the risk assessment form, and the form was not integrated into the company manuals.

A review of FAA surveillance activities revealed that aviation safety inspectors had performed numerous operational control inspections and repeatedly noted deficiencies within the company's training, risk management, and operational control procedures. Enforcement Information System records indicated that FAA inspectors observed multiple incidences of the operator's noncompliance related to flight operations and opened investigations but that the investigations were closed after administrative action had been taken. Therefore, although FAA inspectors were providing surveillance and noting discrepancies within the company's procedures and processes, the FAA did not hold the operator sufficiently accountable for correcting the types of operational deficiencies evident in this accident, such as the operator's failure to comply with its operations specifications, operations training manual, and GOM and applicable federal regulations.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The captain's decision to initiate a visual flight rules approach and attempted landing into an area of instrument meteorological conditions, which resulted in the airplane touching down short of the runway. Contributing to the accident was the operator's inadequate procedures for operational control and flight release and its inadequate training and oversight of operational control personnel. Also contributing to the accident was the Federal Aviation Administration's failure to hold the operator accountable for correcting known operational deficiencies and ensure compliance with its operational control procedures.

Findings

Personnel issues	Decision making/judgment - Pilot (Cause)
Environmental issues	Low visibility - Contributed to outcome
Organizational issues	Adequacy of policy/proc - Operator (Factor)
	Oversight of reg compliance - FAA/Regulator (Factor)
	Training - Operator (Factor)
	Oversight of personnel - Operator (Factor)

Factual Information

On November 22, 2013, about 1330 Alaska standard time, a twin-engine turboprop Beech 1900C airplane, N575X, sustained substantial damage during landing at Badami Airport, 29 miles east of Deadhorse, Alaska. The airplane was operated as ERR75X by Hageland Aviation Services, Inc., Palmer, Alaska, as a visual flight rules on-demand charter flight under the provisions of 14 Code of Federal Regulations Part 135. The airline transport certificated captain, the commercial certificated first officer, and sole passenger were not injured. Instrument meteorological conditions were reported at the time of the accident, and company flight-following procedures were in effect. The flight originated at Deadhorse, Alaska, about 1315.

In a statement provided to the National Transportation Safety Board (NTSB), the first officer stated that, before departure, Badami was reporting visibility of 1 1/2 statute miles (sm), scattered clouds with blue skies above, and blowing snow. After departure, as the pilot-not-flying, he contacted Badami for an updated weather report and was informed the visibility had deteriorated to 3/4 sm in blowing snow. He stated that, at this point, the captain took over all radio communications. During a telephone conversation with the NTSB, the captain reported that, he informed the Badami weather observer that they needed at least 1 sm visibility to land, and, if the weather did not improve, he would return to Deadhorse or enter a holding pattern. A few minutes later, he was informed that the weather had improved to 1 sm in blowing snow. The captain instructed the first officer to load the final segment of the instrument approach into the GPS and set the radar altimeter to 100 feet but did not use or fly the instrument approach.

The captain stated that the flight visibility was unrestricted and that he had the runway environment in sight 20 miles from the airport. The approach was normal, and he never felt uncomfortable until he had a sinking sensation and realized he was too low. The first officer reported that, during the approach, he became uncomfortable and voiced his concerns multiple times to the captain, who assured him that they were "fine." The first officer reported that, on short final approach, right before impact, it appeared they would land short and that he said very assertively, "watch out." The airplane touched down short of the runway, and the main landing gear impacted the elevated edge of the runway surface. The right main gear separated, and the airplane slid along the surface of the runway, sustaining substantial damage to the fuselage and right elevator. The captain reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

During a telephone conversation with the NTSB, the National Oceanic and Atmospheric Administration-certified weather observer on duty at Badami Airport the day of the accident reported that he notified the pilots via radio that he could occasionally see the cold storage camp, which was located "1 1/4 miles away," but he did not consistently have 1 mile visibility. He said that the weather was "bad" and, at times, he could not see the runway. He said that he instructed the pilots to use their own judgment.

During a telephone conversation with the NTSB, the company flight coordinator who had operational control and released the flight the day of the accident reported that she had been with the company for about 6 or 7 years and had not completed flight coordinator training. She stated that, before departure on the day of the accident, the captain had said, "it's [the weather] getting worse, we need to go now." The flight was assigned a risk level of 2 (on a scale of 1 to 4

on the operator's risk assessment form, which is described below). She said that she did not discuss with the flight crew the risks and weather conditions associated with the flight.

According to the company's General Operations Manual (GOM), the flight coordinator had operational control for the accident flight, and the flight coordinator and pilot-in-command (PIC) were jointly responsible for preflight planning, flight delay, and release of the flight. Authority for operational control is specified in federal regulations, the company's operations specifications, and the procedures outlined in the GOM. In all, approximately 80 flight coordinators and 96 company pilots were allowed to release flights and exercise operational control on behalf of the certificate holder.

A review of the company's Federal Aviation Administration (FAA)-approved operations training manual revealed that flight coordinator training was required for personnel authorized to exercise operational control. Initial flight coordinator training consisted of 8 hours of classroom time, and recurrent training consisted of between 3 and 4 hours, depending on the experience of the student.

In addition, the company used a basic risk assessment form containing a 4-tiered numbered system to determine the level of operational control needed for a specific flight, with 1 being the lowest risk and 4 being the highest risk. A risk level of 1 required no risk mitigation, a level 2 required a discussion between the PIC and flight coordinator about the risks involved, a level 3 required a phone call to management for evaluation and approval, and a level 4 required canceling the flight. At the time of the accident, no signoff was required for flight coordinators or PICs on the risk assessment form, and the form was not integrated into the company manuals. According to the company, the risk assessment was part of its operational control and flight release system and was presented to and accepted by the FAA but was not incorporated into the GOM, training program, or other company manuals.

A query of the FAA Program Tracking and Reporting Subsystem found that from July 16, 2013, to October 22, 2013, five operational control inspections were completed by FAA aviation safety inspectors. The inspections noted deficiencies in the company's training, risk management, and operational control procedures.

Enforcement Information System records provided by the FAA indicated that FAA inspectors observed 11 instances of the operator's noncompliance related to flight operations, prompting the initiation of investigations. Between July 2009 and November 29, 2013, the 11 noncompliance investigations were closed with no action taken greater than administrative action.

On November 22, the NTSB requested that the operator secure the cockpit voice recorder (CVR) and flight data recorder (FDR) and was informed by the director of maintenance that both recorders would be secured by maintenance personnel on scene. On December 5, it was discovered that the CVR had not been secured by maintenance personnel and that engine maintenance runs had been performed on the accident airplane. The CVR and FDR were sent to the NTSB vehicle recorder laboratory in Washington, D.C., for review. After review of the CVR, it was determined that the audio had been overwritten by maintenance personnel performing engine maintenance runs. No CVR listening group was convened, and no CVR transcript was created. The FDR readout showed that the accident sequence was consistent with the reports provided by the flight crew.

Badami Airport is a private airport used to support the Badami oil field. Weather observations

at Badami are provided by a private weather observer (call sign, Badami Weather) on a radio frequency of 122.9 MHz. Weather information from the weather observer is available by telephone or by radio upon request. A review of the available weather observations on the day of the accident disclosed the following two observations:

At 1328, about 4 minutes before the accident, a meteorological aerodrome report (METAR) at Badami Airport reported in part: wind 120 degrees, variable 060 degrees thru 210 degrees, at 30 knots, visibility 1/2 sm in heavy blowing snow, broken clouds at 1,000 feet, and temperature -16 degrees F.

At the time of the accident, at 1332, the Badami METAR reported in part: wind 120 degrees, variable 060 degrees thru 210 degrees, at 30 knots, visibility 1/2 sm in heavy blowing snow, broken clouds at 1,000 feet, and temperature -16 degrees F.

History of Flight

Approach	VFR encounter with IMC (Defining event) Loss of visual reference
Approach-VFR pattern final	Controlled flight into terr/obj (CFIT)

Pilot Information

Certificate:	Airline Transport	**Age:**	49
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Without Waivers/Limitations	**Last FAA Medical Exam:**	05/01/2013
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	04/05/2013
Flight Time:	19200 hours (Total, all aircraft), 5000 hours (Total, this make and model), 19000 hours (Pilot In Command, all aircraft), 300 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft)		

Co-Pilot Information

Certificate:	Commercial	**Age:**	26
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Without Waivers/Limitations	**Last FAA Medical Exam:**	12/18/2012
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	04/03/2013
Flight Time:	1500 hours (Total, all aircraft), 400 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	**Registration:**	N575X
Model/Series:	1900C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	UC-149
Landing Gear Type:	Tricycle	**Seats:**	
Date/Type of Last Inspection:	10/03/2013, Continuous Airworthiness	**Certified Max Gross Wt.:**	16600 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo Prop
Airframe Total Time:	35402 Hours at time of accident	**Engine Manufacturer:**	P&W
ELT:	C126 installed, not activated	**Engine Model/Series:**	PT6A SER
Registered Owner:	ICECAP LLC TRUSTEE	**Rated Power:**	1173 hp
Operator:	Hageland Aviation Services, Inc	**Operating Certificate(s) Held:**	Commuter Air Carrier (135); On-demand Air Taxi (135)
Operator Does Business As:	ERA Alaska	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	AK78	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	1232 AST	**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	0 Miles
Lowest Ceiling:	Broken / 1000 ft agl	**Visibility (RVR):**	
Wind Speed/Gusts:	30 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	120°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.6 inches Hg	**Temperature/Dew Point:**	-27°C
Precipitation and Obscuration:	Heavy - Blowing - Snow		
Departure Point:	Deadhorse, AK (PASC)	**Type of Flight Plan Filed:**	Company VFR
Destination:	Deadhorse, AK (AK78)	**Type of Clearance:**	None
Departure Time:	1315 AST	**Type of Airspace:**	Class G

Airport Information

Airport:	Badami (AK78)	**Runway Surface Type:**	Gravel
Airport Elevation:	25 ft	**Runway Surface Condition:**	Ice; Rough; Snow
Runway Used:	03	**IFR Approach:**	None
Runway Length/Width:	5100 ft / 75 ft	**VFR Approach/Landing:**	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	70.008333, -147.022222 (est)

Administrative Information

Investigator In Charge (IIC):	David B Banning	**Report Date:**	03/10/2015
Additional Participating Persons:	James Watson; Federal Aviation Administration; Fairbanks, AK		
Publish Date:	05/26/2016		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=88480		